IN THE UNITED STATES PATENT AND TRADEMARK OFFICE		
	Application Number	09/782,255
	Filing Date	February 14, 2001
	First Named Inventor	Bruce M. HELD
	Group Art Unit	1636
	Examiner Name	N. VOGEL
	Attorney Docket Number	1205-009
Title of the Invention: ***PROMOTER AND CONSTRUCT FOR PLANT TRANSFORMATION***		

DECLARATION UNDER 37 C.F.R. ' 1.132

Commissioner for Patents
P O Box 1450
Alexandria, VA 22313-1450

Dear Sir:

I, Herbert Martin Wilson, of 1915 Stevenson Drive, Ames, Iowa 50010, hereby declare that:

I graduated from University of Leicester (United Kingdom) in 1975 with a Ph.D. in Plant Cell Biology.

I was employed by Pfizer, Inc., from 1982 to 1986, where I was a senior scientist in the Plant Genetics Department.

I was employed by ICI Seeds, Inc., from 1986 through 1994 where I was Cell Biology Project Leader.

Since 1995, I have been employed by Stine Seed Company as Director of Stine Biotechnology.

I am one of the co-inventors of the invention described and claimed in the above-identified application and am familiar with the Office Action dated April 26, 2005.

The Examiner has rejected claims 43-45 under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement in that the claim contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the art that the inventor(s), at the time the application was filed, had possession of the invention. Specifically, the Examiner has rejected claims 43-45 in that the recitation "aligning the selected segments based on homology with the template promoter to derive a first synthetic promoter having

between about 60% to about 90% homology over the entire length of the template promoter" is not a sufficient description for the above-mentioned limitations in the specification as filed. Applicant submits that the synthetic homolog to the figwort mosaic virus (fmv) promoter, was produced using the method of the present invention and having a 77.1% identity to the template. This is an unexpected result for less than a 100% identity to the template. This synthetic promoter, fmvhom, was linked to the bar gene and then introduced into corn embryos via *Agrobacterium*-mediated transformation. The protocol was as described in U.S. Patent No. 6,420,630. From 153 immature embryos a total of 24 events were generated on medium containing 1 mg/l bialaphos. Plants were regenerated from each of these events and shown to express the bar gene. These results establish that the fmv homolog, fmvhom, can act as a constitutive promoter in corn.

Data below: fmvhom homology to fmv. 77.1% identity in 560 base pair overlap

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                10        20        30        40        50        60
fmv.seq         TCAAAATATTTAGCAGCATTCCAGATTGGGTTCAATCAACAAGGTACGAGCCATATCACT
                  || |  || | ||||| |  ||||| ||||||||||||||| || | ||||
fmvhom.seq          TATCTCCAGTACAGATCGCCTTCAACCAACAAGGTACGAACCCTCTCACC
                          10        20        30        40        50

                70        80        90       100       110       120
fmv.seq         TTATTCAAATTGGTATCGCCAAAACCAAGAAGGAACTCCCATCCTCAAAGGTTTGTAAGG
                || ||||||  |  ||  |||||||  ||| |||||| |||| | |||  | ||| |||
fmvhom.seq      TTCTTCAAAAGGAAATTCCCAAAACATAGATGGAACTACCATTCGCAACTGGTTGAAAGT
                        60        70        80        90       100       110

               130       140       150       160       170       180
fmv.seq         AAGAATTCTCAGTCCAAAGCCTCAACAAGGTCAGGGTACAGAGTCTCCAAACCATTAGCC
                 ||||| | | |||||||||||| || ||| ||| |||||||||| | | ||||| ||||
fmvhom.seq      CAGAATCCGCTGTCCAAAGCCTGAAGAAGTTCACGGTACAGAGTTTGCTAACCACTAGCA
                       120       130       140       150       160       170

               190       200       210       220       230       240
fmv.seq         AAAAGCTACAGGAGATCAATGAAGAATCTTCAATCAAAGTAAACTACTGTTCCAGCACAT
                | | |||||| |||| |||||||| |||||||| |||||||| || |||||||||| | |
fmvhom.seq      AGATGCTACAAGAGAAGAATGAAGGATCTTCAAGCAAAGTAACCTGCTGTTCCAGAAGAC
                       180       190       200       210       220       230

               250       260       270       280       290       300
fmv.seq         GCATCATGGTCAGTAAGTTTCAGAAAAAGACATCCACCGAAGACTTAAAGTTAGTGGGCA
                 |||||||||||| |||| |||||||||| |||||||| ||| || |||| || |
fmvhom.seq      TCATCATGGTCAGAAAGTAACAGAAAAAGAAGTCCACCGAGGACGTAGAGTTTTTGAGGG
                       240       250       260       270       280       290

               310       320       330       340       350       360
fmv.seq         TCTTTGAAAGTAATCTTGTCAACATCGAGCAGCTGGCTTGTGGGGACCAGACAAAAAAGG
                ||||| |||||||||  |   | |||||  | ||||||  | |  ||||||||||| ||| |
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fmvhom.seq   TCTTTAAAAGTAATCCTTGTACCATCGGTCGGCTGGCATATTTGGACCAGACAAGAAAAG
                    300       310       320       330       340       350

                    370       380       390       400       410       420
fmv.seq      AATGGTGCAGAATTGTTAGGCGCACCTACCAAAAGCATCTTTGCCTTTATTGCAAAGATA
              ||||||||||| ||||| |||| | | ||||| ||||| | ||||| ||| ||||||
fmvhom.seq   GATGGTGCAGAACCTTTAGGTGCACATCCAAAAAGAATCTTGGACTTTACTGCGAAGATA
                    360       370       380       390       400       410

                    430       440       450       460       470       480
fmv.seq      AAGCAGATTCCTCTAGTACAAGTGGGGAACAAAATAACGTGGAAAAGAGCTGTCCTGACA
             ||| |||| ||||| || ||| |||||  |||||||| ||||||| |||| ||||||||
fmvhom.seq   AAGGAGATCGCTCTATTAAAAGGGGGGAGAAAAATAACATGGAAAAAAGCTATCCTGACA
                    420       430       440       450       460       470

                    490       500       510       520       530       540
fmv.seq      GCCCACTCACTAATGCGTATGACGAACGCAGTGACGACCACAAAAGAATTCCCTCTATAT
             |||||    | | ||||||||||||||||||||||||||| | ||| || | || |||||
fmvhom.seq   GCCCAGCTTCGAGTGCGTATGACGAACGCAGTGACGACCATAGAAGGATGCTCTATATAT
                    480       490       500       510       520       530

                    550       560       570
fmv.seq      AAGAAGGCATTCATTCCCATTTGAAGGATC
             |   ||||||| |||||||||  ||||| |
fmvhom.seq   ACAGAGGCATTTATTCCCATTACAAGGAGC
                    540       550       560
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Additionally, Applicant submits that the synthetic homolog to the 35S Cauliflower Mosaic Virus promoter, CaMV, was produced using the method of the present invention and having a 79.2% identity to the template. This is an unexpected result for less than a 100% identity to the template. This synthetic promoter, MuB, was linked to the bar gene and then introduced into corn embryos via *Agrobacterium*-mediated transformation. The protocol was as described in U.S. Patent No. 6,420,630. From 174 immature embryos a total of 13 events were generated on medium containing 1 mg/l bialaphos. Plants were regenerated from these events and shown to express the bar gene. These results establish that the 35S homolog, MuB has been shown to act as a constitutive promoter in corn.

Data below: MuB homology to 35S 79.2% identity in 351 bp overlap

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                    10        20        30        40        50        60
mub          TCAAATTTTTCTACAAAGGATCATATCGGGCATGTTCATGGAACCCGTTTGGCCACCAAT
             | | | ||||| ||||||| | |||||||| |   || | | |   |   || ||| | ||
35S          TGAGACTTTTCAACAAAGGGTAATATCGGGAAACCTCCTCGGATTCCACTGCCCAGCTAT
                    10        20        30        40        50        60

                    70        80        90       100       110       120
mub          TTGCAACTTCATCAAGAGGACAGTAGAAAATTAAGTTGGCACCTACTAATGCCACAAATG
              ||  |||||||||| |||||||||||||  ||| |||||||||| |||||||  | ||
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35S     CTGTCACTTCATCAAAAGGACAGTAGAAAAGGAAGGTGGCACCTACAAATGCCATCATTG
                70        80        90       100       110       120

                130       140       150       160       170       180
mub     TGATAAAGGACAGTCTATCGTTCAGGTTTCTTCTTCTGACAGAGGTCCCAAAGACGGATG
        ||||||||| || |||||||||| | | | ||| | ||||| |||||||||| |||
35S     CGATAAAGGAAAGGCTATCGTTCAAGATGCCTCTGCCGACAGTGGTCCCAAAGATGGACC
                130       140       150       160       170       180

                190       200       210       220       230       240
mub     ACTTATCAGGAGGACCACTGAGGAAACAGAAGACGTACCAACCACGTTTTCAAAGGAAGT
        |    || ||||| ||  | ||||| ||||||||| |||||||||| ||||||| ||||
35S     CCCACCCACGAGGAGCATCGTGGAAAAAGAAGACGTTCCAACCACGTCTTCAAAGCAAGT
                190       200       210       220       230       240

                250       260       270       280       290       300
mub     GGATTGATGAGATATCTCCATTGACGTAAGGGATGACGCACAATCCCACAATCCTTCATC
        ||||||||| |||||||||| ||||||||||||||||||||||||||||| |||||||
35S     GGATTGATGTGATATCTCCACTGACGTAAGGGATGACGCACAATCCCACTATCCTTCGCA
                250       260       270       280       290       300

                310       320       330       340       350
mub     AGAGCCTTTCACTATATGAGGATGTTCATTTCATTTCGAGTGGCCACGCTG
        ||| |||| | |||||| |||| |||||||||||| ||| || |||||||
35S     AGACCCTTCCTCTATATAAGGAAGTTCATTTCATTTGGAGAGGACACGCTG
                310       320       330       340       350
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In summary, the above-mentioned sequence data indicate a high degree of homology to the template and unexpected results for less than 100% homology to the template: the synthetic homolog to the figwort mosaic virus promoter, fmvhom, has a 77.1% identity to the template, and the synthetic homolog to the 35S Cauliflower Mosaic Virus promoter, MuB, was produced having 79.2% identity to the template, where each of the two synthetic homologs is within the 60%-90% range as stated in the specification and recited above in this response.

I, the undersigned, declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Date: 6/22/05

Herbert Martin Wilson, Ph.D.